REMARKS

This responds to the Office Action dated April 25, 2007 in the present application.

Claims 1 through 49 are pending in the present application. The Specification and claim 1, 3, 4,

15 and 25 of the present application were amended. Individual issues raised in the Office Action

will be addressed next in order in which they were raised by the Examiner.

Objection to the Drawings

In the Office Action, Figure 2 of the drawings was objected to because it contained

reference numerals not mentioned in the Specification. In response, Applicants amended

description of Figure 2 in paragraph [0079] to describe steps identified by the reference numerals

110 and 112. No new matter has been added by this amendment. Support for the amendment

may be found in the figures and throughout the Specification and claims of the application.

Accordingly, withdrawal of the objections to the drawings is respectfully requested.

Objection to the Specification

In the Office Action, the Specification of the application was objected to for failure to

correctly identify various sections thereof. In response, Applicants amended the Specification of

the application by inserting several descriptive section headings therein. Accordingly,

withdrawal of the objections to the Specification is respectfully requested.

Claim Objections

In the Office Action, claims 2, 4-6, 11, 15-16 and 25 were objected to because they

contained several informalities. In response, Applicants amended claims 3, 4, 15 and 25 as

suggested in the Office Action. Applicants, however, respectfully disagree with suggested

amendments to claims 6 and 11 in which all term appear to be correct. Accordingly, withdrawal

of the objections to the claims of the application is respectfully requested.

Claim Rejections

In the Office Action, claims 20-26, 31-35, 40-46 and 49 were rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Application 2001/0043236 to Yamamoto; claims 1-3, 7, 12-19 and 36-39 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of U.S. Patent No.6,918,095 to Agnes et al.; and claims 4-6, 8-10, 27-29 and 47-48 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto and Agnes and over other cited references. Applicants respectfully traverse.

In the Office Action, the Examiner states that Yamamoto discloses a method of coding a view in a two dimensional CAD drawing and refers to paragraph 2 lines 1 to 5. However, Yamamoto does not disclose <u>coding a view</u> and in particular the passage mentioned makes no reference to it. Instead it simply refers to <u>use of views</u>. Yamamoto describes a method of associating 2D drawing with 3D features so that a user can identify a 3D features by selecting an element of a 2D projection of the parent 3D model. It does not disclose any method of identifying views for coding nor describes coding of any views. Indeed there was no discussion of coding views at any point in the specification. For example, Merriam Webster dictionary defines the term 'to code' as to convert or change into code, whilst the noun 'code' has the meaning of computer program instructions. It is clear in this context that 'coding a view' means converting a view into computer program instructions, ie. computer code equivalent to that view. This is not just clear from the dictionary but also from the specification itself.

Therefore, Applicants submit that the term 'coding' is unambiguous, and there is no interpretation of the word 'code' which would accurately describe the disclosure of Yamamoto. At least for these reasons, Yamamoto does not anticipate nor renders obvious claims of the present application.

Continuing with the other Examiner's comments, the examiner states that Yamamoto discloses step B of 'identifying and viewing the drawing for coding' and refers to paragraph 12 line 11 to 14 in particular. This section describes the generation of two dimensional drawings and selection of a graphic element within a two dimensional drawing. There is no disclosure of identifying a view within the 2D drawing, either in this passage or elsewhere in the description. Additionally for the reasons given above the identification that is done is not 'for coding'.

The meaning of a 'view' is clear from the Specification of the application n as meaning one of a number of views displayed in the total two dimensional drawing and not merely a feature within a view. With this terminology, Yamamoto merely allows selection of part of a particular view not identification of a view itself.

Furthermore, Yamamoto does not disclose step D 'extracting properties of the feature from the CAD drawing wherein the properties include vector properties associated with the graphic entity or group of graphic entities'. It was clear that the CAD drawing is two dimensional due to its antecedents but this has been clarified in the amended claim. In the claimed invention, properties are extracted from a two dimensional drawing. No properties are extracted from a two dimensional drawing in Yamamoto. The Examiner refers to paragraph 50 lines 1 to 4. This describes extraction of properties of a three dimensional model in order to produce a two dimensional drawing based on them. That is that the extraction is done before any two dimension drawing is produced and therefore has no relevance to the claimed invention. In Yamamoto, the two dimensional drawing is the result of the extraction, not the drawing from which the properties are extracted.

In addition, Yamamoto doesn't disclose the feature of step E 'generating code bits representative of the extracted properties'. The Examiner refers to paragraph 51 lines 1 to 2.

The examiner states that he has interpreted search class as 'code bits'. However there is no interpretation under which search classes can be code bits. From the dictionary definition of code and bits, the term refers to elements of code and as defined by description under paragraph 12, these represent an item or property of an object being coded. The search class is not an element of the code, nor does it represent a feature of the image to be coded and therefore has no relevance to claim 1. Indeed Yamamoto defines 'search class' as 'hierarchically structured two dimensional drawing which has a three dimensional line of site and supports overlaid views' and is the view onto which each feature is projected (paragraph 44 line 1 to 9). There is clearly no similarity between this and the code bits of ones and zeros of a binary pattern representing an extracted property as with the current invention.

Moreover, Yamamoto doesn't disclose feature F 'adding the code bits to a view code of a view'. The Examiner refers to paragraph 51 and interprets creation of a projection view data as view code. Again referring both to the definition given in specification and in the dictionary, there is no interpretation of code which would include projection view data. Yamamoto has simply used the standard process for displaying a 2D view on a computer display and has no relevance to the process for coding nor to view code. Moreover, since he does not disclose the creation of code bits, it cannot add them to a view code.

For the same reasons, Feature G is not disclosed by Yamamoto. It appears that Yamamoto stores in the record graphical elements that make up a profile view and the features to which the graphical elements correspond. In doing so it allows the user to pick a profile view on a screen and allows the system to search profile view records in order to find which profile view has been picked and hence the feature to which it relates to. This is not storing of a 'code' but of

data used to display a 2D view just as with any 2D drawing. This is not code corresponding to the view.

The Examiner is correct that Yamamoto does not disclose the features of Step A of 'filtering the drawing' however, the Examiner believes it is obvious to incorporate this from Agnes et al. where this feature is taught. He refers to column 2 lines 15 to 18. However, Agnes does not teach this feature. Agnes teaches using 3D entity for the production of a the projectional view. Step A requires filtering of the two dimensional CAD drawing, and has nothing to do with the generation of a view. Not only are the mechanisms used and the intended purpose entirely different Agnes does not read onto this feature since it filters a 3D image not a two dimensional CAD drawing.

Additionally Agnes gives no suggestion of filtering of a two dimensional CAD drawing. Indeed the requirements of filtering a 3D projection are very different to filtering a 3D image before creating or generating a 2D projection. For example, if the 2D drawings are being created from the 3D image, the border entities are known by the system at the stage of filtering whereas when removing a border from a 2D drawing (without any 3D information) the entities that make up the border have to be identified. Accordingly these are non trivial problems which are solved by the current invention. Whilst it may be obvious to combine the teaching of Agnes into Yamamoto to filter the 3D model it would not be obvious to filter the 2D CAD drawing.
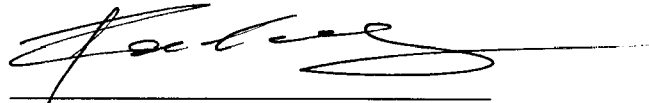
Claims 2 to 19 are dependent upon claim 1 and therefore novel and inventive for at least the same reasons.

Claim 20 is broadly equivalent to claim 1 and novel and inventive for the same reasons as is claim 23, claim 45, claim 49 and their dependent claims.

Claims 46 and 40 are also novel and inventive over Yamamoto. It includes the features of generating code bits and adding code bits and therefore are also new and inventive over Yamamoto. Additionally matching the appropriate class is obviously not the same as on the basis of similarity index.

In view of the above, the Applicants respectfully submit that the present application is believed to be in condition for allowance and a favorable disposition to that effect is respectfully requested. Should the Examiner have any questions regarding the above amendments or any aspect of this response, he is kindly invited to contact the Applicants' undersigned representative at the indicated number.

Respectfully submitted,

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